

#### IETF: Internet Evolution Turbo Facilitator

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#### Major Standards Organization for Internet

IETF: Internet Engineering Task Force

Internet based protocols

W3C: World Wide Web Consortium

Web based protocols OASIS:
Organization for the
Advancement of
Structured
Information
Standards

Ecommerce related standards ITU: International Telecommunication Union

Telecom based standards





#### **IETF** "Standards"

# IETF standards: a de-facto standard for Internet

No formal recognition for IETF standards

Many standards organization refer to IETF protocols Some government standards refer to IETF standards

Internet companies implement them

A lot of people use IETF protocols



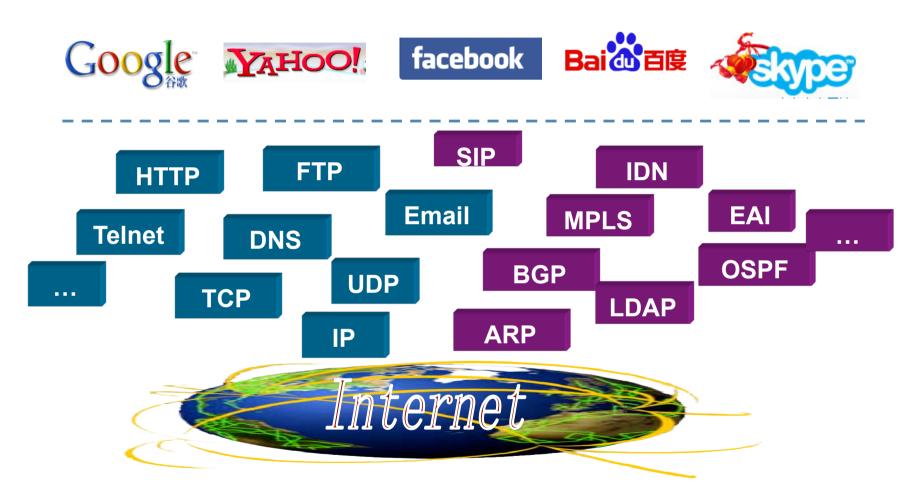
#### **IETF Standard Facts**

# More than 90% of Internet Standards are created by IETF (Internet Engineering Task Force), including:

Internet base protocol: TCP/IP	ing Web: HTTP SMTP、POP、IMAP	Domain Name Resolution: DNS	File Downloading: FTP	Other Protocols such as routing, SNMP
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#### **IETF Contribution to Internet**



IETF leads the Internet to flourish for more than 20 years





#### **IETF Overview**

- The Internet Engineering Task Force (IETF) is a large open international community of network designers, operators, vendors, and researchers concerned with the evolution of the Internet architecture and the smooth operation of the Internet.
- IETF is founded in early 1986
- It is open to any interested individual.
- Recent meeting participants: around 1000



#### Dots

- IAB member (red)
- IESG member (yellow)
- Working Group chair (blue)
- nomcom (orange) they came to listen to you...
- local host (green)
- others, maybe even drums and ornaments ...



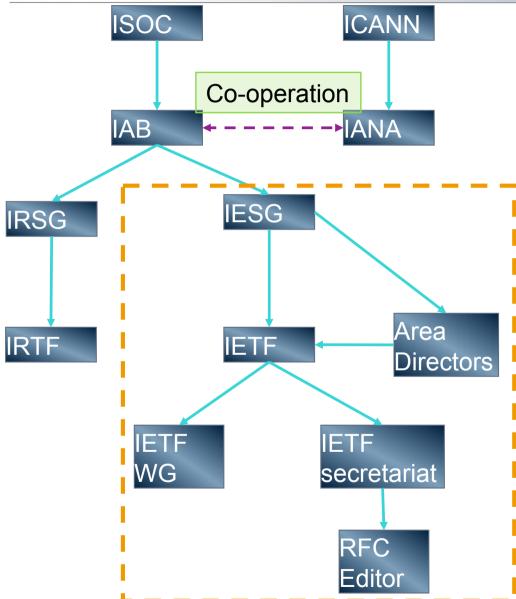


#### **IETF Documents**

- all open no "confidential contributions"
  - Any document can be find online
  - Anyone with the email can give the comments
  - Any decision is not decided secretly
- developed as Internet-Drafts
  - anyone can submit "expire" in 6 months
  - some I-Ds are working group documents
- published as RFCs
  - archival publications (never changed once published)
  - different types: (not all RFCs are standards!)
    - informational, experimental, BCP, standards track, historic
- 3-stage standards track, under review in NEWTRK
  - Proposed Standard, Draft Standard, Internet Standard



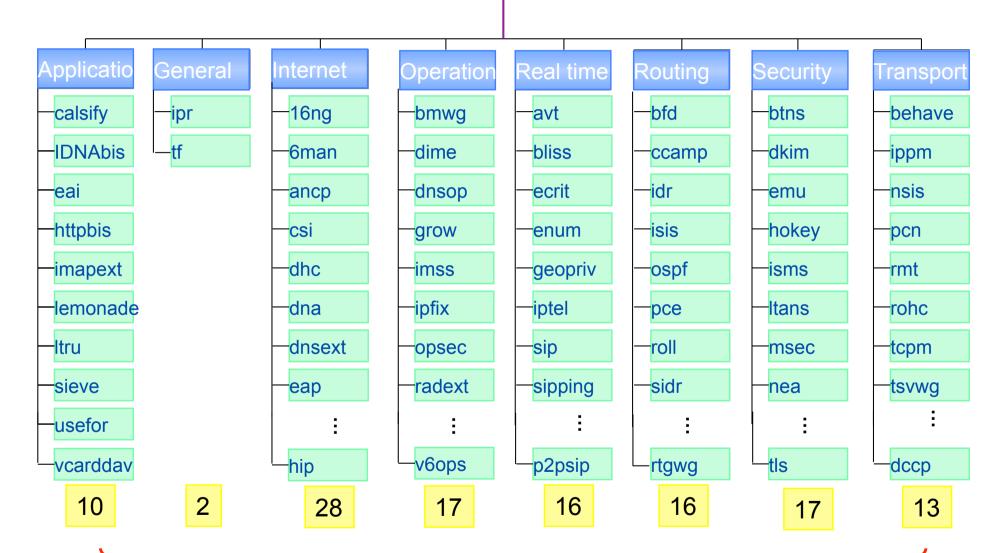
#### **IETF** and Other related Organization







#### **IETF**





#### **IETF Working Group**

- no defined membership
  - just participants
  - Any individual, not company
- Anyone with the email address can join it
- Workshop for producing drafts and rfcs
- Major work is on mailing lists
- Face-to-Face meeting is to discuss and decide some very important things
- "Rough consensus and running code..."



#### WG Principal: Rough Consensus

"We reject kings, presidents and voting. We believe in rough consensus and running code."

-- Dave Clark





#### **Rough Consensus**

- Clearly dominant agreement
- Does not have to be unanimous
- Judging consensus can be hard w/o voting
  - humm
  - show of hands
- May discard parts to get consensus on rest
  - May discard the part which can not have a consensus
  - Consensus on the part which can have a consensus



#### **Appeals Process**

## IETF decisions can be appealed

- start appeal at level above decision being appealed
- 1st to WG chair
- only then to Area Director
- only then to IESG
- only then to IAB

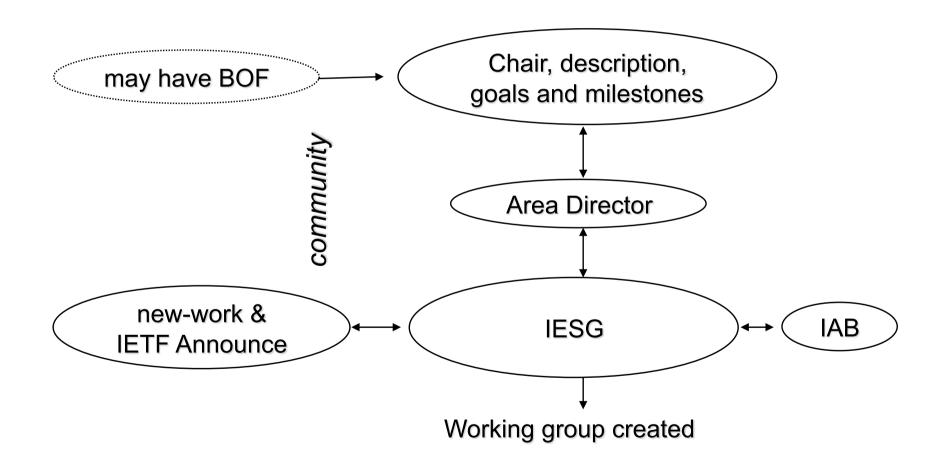
## if claim is that the process has not been followed,

 only then an appeal can be made to the ISOC Board



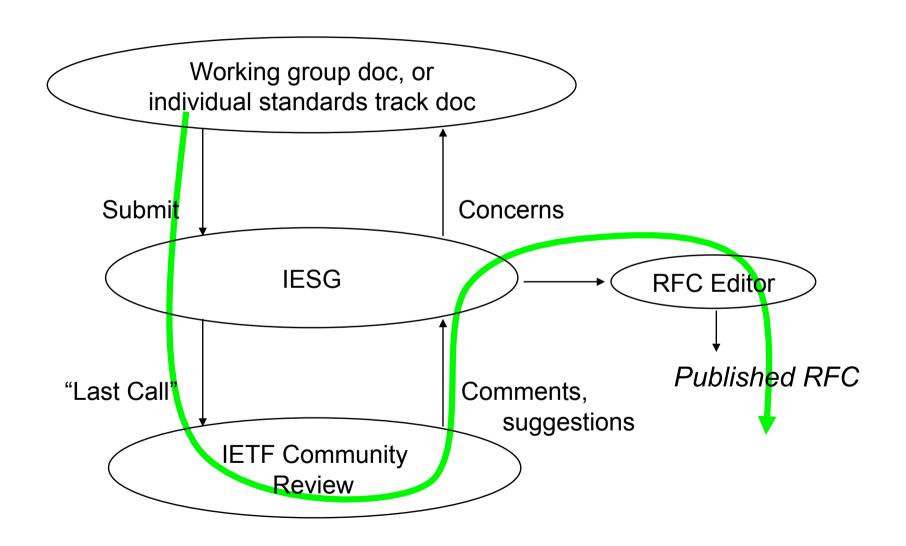


#### **Working Group Creation**





#### IETF document procedure





#### IETF document procedure

- Proposals published as Internet Drafts (ID)
- Worked on in a Working Group
- WG sends IESG request to publish an ID 'when ready'
- Proposal reviewed by AD
  - can be sent back to working group for more work
- IETF Last-Call (4-week if no Working Group)
- IESG review
  - last call comments + own technical review
  - can be sent back to Working Group for more work
- Publication as RFC



#### **Document Procedure in WG**

- Initial Submission
- Author Refinement
- WG Acceptance
- Editor Selection
- WG Refinement
- WG Last Call





#### **Document Procedure in IESG**

- AD Review
- IETF Last Call
- IESG Review
- Document sent to RFC Editor and IANA





#### I am Working on IETF

- Joining the IETF activity since 2000
  - Contribute to RFC3743 (JET guideline for IDN)
  - Author RFC4713 (CDN guideline)
  - Submit many drafts
  - Give many comments
  - Join many IETF meeting since 2001
  - Face to Face meeting with many IETF experts to discuss and solve all kinds of problems
- IETF EAI (Email address internationalization) working group to try to solve the problem of IDN email
  - Co-chair for this WG



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#### Main Documents in EAI WG

Overview and Framework for Internationalized Email (RFC4952 July 2007)

SMTP extension for internationalized email address (RFC5336 September 2008 submitted by CNNIC)

Internationalized Email Headers

(RFC5335 September 2008)

International Delivery and Disposition Notifications (RFC5337 September 2008)

Downgrading mechanism for Email Address Internationalization (RFC5504 March 2009)

**UTF-8 Mail: Scenarios** 

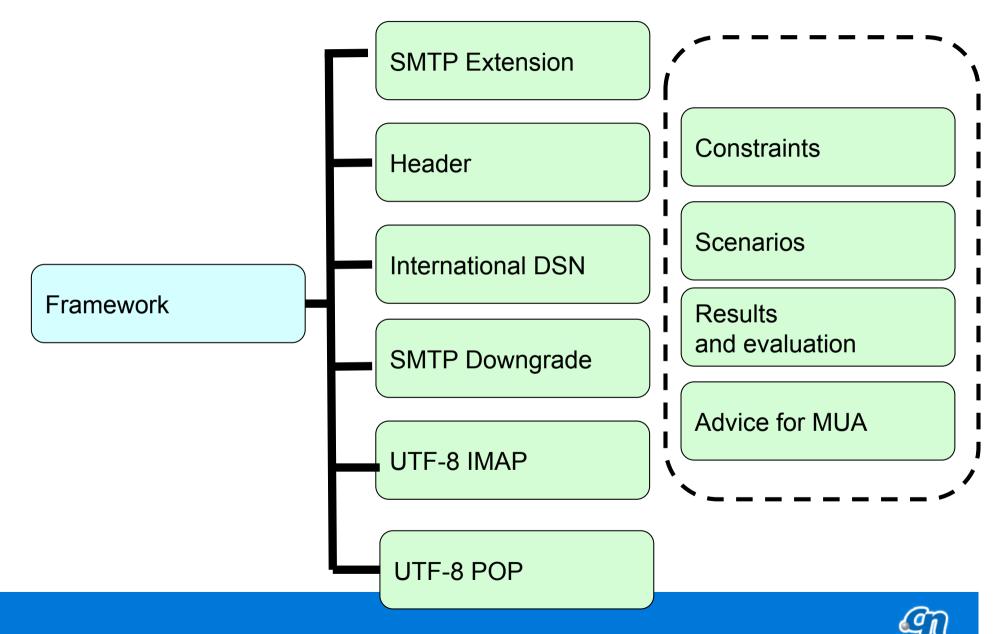
**IMAP Support for UTF-8** 

Mailing Lists and Internationalized Email Addresses

POP3 Support for UTF-8







#### CNNIC-TWNIC-NIDA-JPRS-



Sandwich LORD





## In the near future, you can use these kind of email addresses.

eg. 기학교 (교) 나라 (보기왕대@उदाहरण.in 영호대हरण.in 例え@例え.jp 실례@실례.kr 用户@中文.cn été@Économie.fr teuer@Schön.de





#### IETF working experiences

- Join IETF mailing lists
  - This is where the work happens
  - Read the mails
  - Give the comments
- Read the drafts
- Don't be shy, Talk to people
  - Exchanging ideas
  - An opportunity to improve your English if you speak English as a foreign language
- Look for common ground
- Help people to review the drafts and issues



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